

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** An ~~ethanol~~ alkanol-free gasoline fuel composition, ~~having in combination which comprises:~~

- an octane value (R+M)/2 of at least 85;
- an aromatics content less than 25 vol-%;
- a water-soluble ethers content less than 1 vol-%;
- a 10% D-86 distillation point no greater than +150°F (65.6 °C);
- a 50% D-86 distillation point no greater than +230°F (110 °C);
- a 90% D-86 distillation point no greater than +375°F (190.6 °C);
- Reid Vapor Pressure of less than 9.0 psi (62 kPa);
- a total olefins content of more than 7 vol.% and up to 40 vol.-%;
- a content of light olefins, with a boiling point below +90 °C, of less than 6 vol. %; and
- a combined content of trimethylpentenes, trimethylhexenes and trimethyl-heptenes greater than 1 vol. %, wherein, said gasoline fuel composition being free of ~~ethanol~~ alkanol.

2. **(Original)** The gasoline fuel composition according to claim 1, having combined content of trimethylpentenes, trimethylhexenes and trimethylheptenes of 2 to 30 vol. %.

3. **(Original)** The gasoline fuel composition according to claim 2, having a content of iso-octene in the range of 5 to 20 vol. %.

4. **(Original)** The gasoline fuel composition according to claim 1, further containing 0.1 to 20 vol. % of isoparaffines.

5. **(Original)** The gasoline fuel composition according to claim 4, wherein the total content of isoolefins and isoparaffins is 2 to 40 vol. %.

6. **(Original)** The gasoline fuel composition according to claim 1, wherein the total content of olefins is less than 20 vol. %.

7. **(Cancelled)** The gasoline fuel composition according to claim 1, further having an ethanol content of 0.01 to less than 6 vol. %.

8. **(Original)** The gasoline fuel composition according to claim 1, wherein the concentration of oxygen is 0.1 to 5 mass %.

9. **(Currently Amended)** The gasoline fuel composition according to claim 1, ~~having in combination~~

~~-an octane value (R+M)/2 of at least 85;~~

~~-an aromatics content less than 25 vol. %; and~~

~~- a water-soluble ethers content of less than 1 vol. %;~~

wherein said composition has a content of olefins, at least 10 % of which is formed by heavy olefins having a boiling point above +90 °C.

10. **(Cancelled)** The gasoline fuel composition according to claim 1, having in combination

- an octane value (R+M)/2 of at least 85;

- an aromatics content less than 25 vol. %; and

- a water-soluble ethers content of less than 1 vol. %;

wherein said composition contains up to 40 % olefins, and it contains less than 6 vol.-% of light olefins having a boiling point below +90 °C, and at least 1 vol.-% heavy branched olefins having a boiling point above +90 °C.

11. **(Previously Presented)** A method of reducing the emissions of an automotive engine of one or more pollutants selected from the group consisting of CO, NO_x, particulates and hydrocarbons compared to combusting CARB 2 fuel, comprising

a) introducing into said automotive engine an unleaded gasoline according to claim 1 or 10

b) combusting the unleaded gasoline in said engine;

c) introducing at least some of the resultant engine exhaust emissions into the catalytic converter; and

d) discharging emissions from the catalytic converter to the atmosphere.

12. **(Cancelled)** The method according to claim 11, wherein the gasoline further contains 0.01 to 6 vol. % ethanol.